

JC17 Rec'd PCT/PTO 13 JUN 2005

AMENDMENTS TO THE CLAIMS

1. (Currently amended) Use of a A method of treating a disorder in which aberrant cell division occurs in a human or animal comprising administering to said human or animal a therapeutically effective amount of a peptide comprising the amino acid sequence

$$X_1 X_2 X_3 W M X_4 X_5 X_6 X_7$$

wherein

the sequence X_1 to X_7 is an amino acid sequence comprising at least 9 amino acids, which may optionally be interrupted by one or two amino acid residues between one or more of the 9 amino acid positions defined herein;

X_1 is selected from W, T, PE, KQI, VV, PQT, H, RI and absent;

X_2 is an amino acid with an aromatic side chain;

X_3 is P or D;

X_4 is an amino acid with a basic side chain;

X_5 is an amino acid with a charged side chain;

X_6 is an amino acid with a charged side chain; and

X_7 is an amino acid with a basic side chain or Serine;

~~in the manufacture of a medicament for treating or preventing a disorder in which aberrant cell division occurs.~~

2. (Currently amended) Use The method according to claim 1 wherein X_2 is Y, F or W.
3. (Currently amended) The method Use according to claim 1 or 2 wherein X_4 is K, R or H.

4. (Currently amended) Use The method according to any one of the preceding claims 1 wherein X₅ is K, R, E, H, D, N or Q.
5. (Currently amended) Use The method according to any one of the preceding claims 1 wherein X₆ is K, R, E, H, D, N or Q.
6. (Currently amended) Use The method according to any one of the preceding claims 1 wherein X₇ is H, S, R or K.
7. (Currently amended) Use The method according to claim 1 wherein X₂ is F or Y, X₄ is K or R, X₅ is K, R or E, X₆ is H, R, Q or K and X₇ is H, S, R or K.
8. (Currently amended) Use The method according to claim 7 wherein X₂ is Y and X₃ is P.
9. (Currently amended) Use The method according to claim 8 wherein said peptide X₁ to X₇ has the amino acid sequence W Y P W M K K H H R.
10. (Currently amended) Use The method according to any one of the preceding claims 1 wherein said peptide further comprises a cell penetration moiety.
11. (Currently amended) Use The method according to claim 10 wherein said cell penetration moiety is linked directly to the carboxy-terminal of the peptide X₁ to X₇.
12. (Currently amended) Use The method according to claim 10 or 11 wherein said cell penetration moiety has the amino acid sequence:

X₈ Q I K I W F Q N R R M K W K K

wherein X₈ is R or Q.

- 13 (Currently amended) Use The method according to claim 10 or 11 wherein said cell penetration moiety has the amino acid sequence

X₈ Q X₉ X₁₀ X₁₁ W F Q N X₁₂ X₁₃ M X₁₄ W X₁₅ X₁₆

wherein

X₈ is R or Q,

X₉, X₁₁ are each independently I or L, and

X₁₀, X₁₂, X₁₃, X₁₄, X₁₅ and X₁₆ are each independently K or R

14 (Currently amended) Use The method according to claim 10 or 11 wherein said cell penetration moiety has the amino acid sequence:

QIRIWFQNRRMKWKK;

QIKIWFQNKRKMKWKK;

QIKIWFQNKKMKWKK;

QIRIWFQNRMKWK;

QIRIWFQNRRMRWKK;

QIRIWFQNRRMKWRK;

QIRIWFQNRRMKWKR;

QIRIWFQNRRMKWRR;

QIRIWFQNRRMKWKK;

QIKIWFQNRRMKWRK;

QIRIWFQNKRKMWRK;

QIKLWFQNRRMKWKK,

QLKLWFQNRRMKWKK; or

QLRIWFQNRRMKWKK.

15. (Currently amended) Use The method according to claim 10 wherein said peptide has the sequence

W Y P W M K K H H R Q I K I W F Q N R R M K W K, or

W Y P W M K K H H R Q I K I W F Q N R R M K W K K

16. (Currently amended) Use The method according to claim 1 wherein said peptide has the sequence

W Y P W M K K H H R.

17. (Currently amended) Use The method according to any one of the preceding claims wherein said disorder is a cancer.

18. (Currently amended) Use The method according to any one of the preceding claims wherein said cells express one or more Hox genes.

19. (Currently amended) Use The method according to any one of the preceding claims wherein PBX does not act as an oncogene in said cells.

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Currently amended) A method reducing the side effects of a cytotoxic or chemotherapeutic agent, in a human or animal comprising administering to said human or animal Use of at the peptide as defined in any one of claims 1 to 16 in the manufacture of a medicament for reducing the side effects of a cytotoxic or chemotherapeutic agent.

24. (Currently amended) A method of maintaining or expanding a stem cell population in vivo in a human or animal comprising administering to said human or animal Use of at the

peptide as defined in ~~any one of~~ claims 1 to 16 in the manufacture of a medicament for maintaining or expanding a stem cell population *in vivo*.

25. (Canceled)

26. (Currently amended) A method according to claim 25-1 wherein said human or animal is also administered a cytotoxic or chemotherapeutic agent.

27. (Currently amended) A method of maintaining or expanding stem cells *ex vivo* comprising contacting said stem cells with ~~a~~the peptide as defined in ~~any one of~~ claims 1 to 16.

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Currently amended) A pharmaceutical composition comprising a peptide as defined in ~~any one of~~ claims 1 to 16 and a pharmaceutically acceptable carrier.

35. (Currently amended) A pharmaceutical composition according to claim 32-34 further comprising a cytotoxic or chemotherapeutic agent.